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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,542	02/26/2004	Hiroshi Arita	H6808.0045/P045	3260
24998 7590 12/27/2006 DICKSTEIN SHAPIRO LLP 1825 EYE STREET NW Washington, DC 20006-5403			EXAMINER BUGG, GEORGE A	
			ART UNIT	PAPER NUMBER
			2612	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		12/27/2006	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/786,542

Applicant(s)

ARITA ET AL.

Examiner

George A. Bugg

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,8,9 and 12 is/are rejected.
- 7) ☒ Claim(s) 4,5,7,10,11, and 13-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, and 6, 8, 9, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Application Publication No. 2005/0017873 A1 to Liu et al.

3. With respect to claims 1 and 2, Sections 14 and 15 teach sensors capable of detecting environmental conditions, wherein a sensor package includes one or more sensors, processing means for processing signals detected by the sensors, and a wireless transmitter. More specifically, Sections 21 and 22 disclose the use of wireless sensors incorporated into a structure, such as a building or other civil structure, that detect a physical quantity, such as force, stress, temperature, tilt, and moisture, to which the sensors are subjected to, for the purpose of monitoring the health of the structure. In addition, Liu discloses “wireless transmission” throughout the reference, which inherently suggests wireless reception, however wireless reception is specifically

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taught in Sections 51-53. With reference to Figure 4, as well as Section 45, Liu further teaches a power source, shown as element 42, which may include inductive coils, rechargeable batteries, or capacitors, which may be charged from outside the structure, utilizing such power generators as solar cells, vibration-based generators, or thermal charging devices. As seen in Figure 4, and discussed in Section 33, the power source 42 supplies power to the sensor node 10, which includes a transceiver 36 (transmitter and receiver), control circuitry 35, which contains the processor, and the sensors 30 and 32. Moreover since all of the above components are connected to a power source, inherently each component is a load device, since they will cause a drain on the power source. With regard to intermittent activation, Sections 46 and 47 disclose multiple methods for reducing power consumption, including turning the sensor node 10, which includes the sensors, the transceiver, and the processor, off for a period time, or putting the node to sleep. Lastly, claims 1 and 2 recite the receiver being activated by/after the transmitter is activated. With regard to transmitting and receiving devices being utilized in tandem, the devices are tuned to operate in conjunction with one another, and even if the receiver is powered, it will be in a sleep mode, standby mode, or idle mode, until it begins to receive signal transmission from the transmitter, inherently teaching that the receiver is activated by or after the transmitter.

4. As for claim 6, Liu teaches the use of storage devices in Section 15.

5. With regard to claims 8, 9, and 12, Liu teaches, in Section 47, that the sensor node can be placed in a sleep mode, and that the processor will use prediction of future

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measurements while the node is off. While in the sleep mode, as seen in Figure 6, no data is transmitted.

### ***Response to Arguments***

6. Applicant's arguments filed 10/18/2006 have been fully considered but they are not persuasive. With regard to Applicant's repeated argument, which was addressed in an Advisory Action dated 09/07/2006, the Examiner does not disagree that system of Liu discloses several scenarios in which a determination is made with regard to entering a sleep mode. However, whether the receiver of Liu is sleeping or not, a receiver, any receiver, is idle, sleeping, or non-active, until a transmitter associated therewith, begins sending signals for the receiver to receive. Again this is the essence of the relationship between a receiver and a transmitter. This limitation is an inherent feature of any receiver/transmitter system.

### ***Allowable Subject Matter***

7. Claims 4, 5, 7, 10, 11, and 13-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George A. Bugg whose telephone number is (571) 272-2998. The examiner can normally be reached on Monday-Thursday 9:00-6:30, and every other Friday.

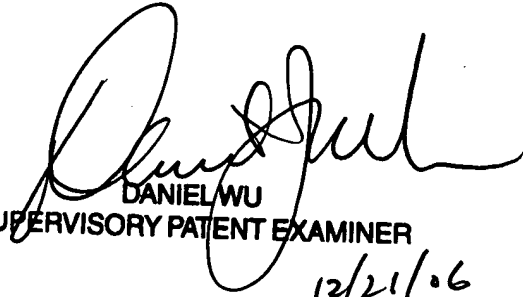
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

George A Bugg  
Examiner  
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December 21, 2006

  
DANIEL WU  
SUPERVISORY PATENT EXAMINER  
12/21/06